EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1334	((546/290) or (546/334)).CCLS.	US-PGPUB; USPAT	OR	OFF	2007/07/06 10:44
L2	670	1 and amino and methyl and pyridine	US-PGPUB; USPAT	OR .	OFF	2007/07/06 11:05
L3	0	("(vangelistiadjmanuel.inv.)").PN.	US-PGPUB	OR	OFF	2007/07/06 11:05

7/6/07 11:05:56 AM Page 1

```
C:\Documents and Settings\brobinson1\My Documents\stnweb\Queries\2a323f.str
```

```
7 8
ring nodes :
   1 2 3 4
              5
chain bonds :
   7-8
ring bonds :
   1-2 1-6 2-3 3-4 4-5 5-6
exact/norm bonds :
   7-8
normalized bonds :
   1-2 1-6 2-3 3-4 4-5 5-6
isolated ring systems :
   containing 1 :
Connectivity:
   7:2 E exact RC ring/chain
Match level: 1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:Atom
```

chain nodes :

C:\Documents and Settings\brobinson1\My Documents\stnweb\Queries\rererh.str

```
ring nodes:
    1 2 3 4 5 6

chain bonds:
    7-8

ring bonds:
    1-2 1-6 2-3 3-4 4-5 5-6

exact bonds:
    7-8

normalized bonds:
    1-2 1-6 2-3 3-4 4-5 5-6

isolated ring systems:
    containing 1:
```

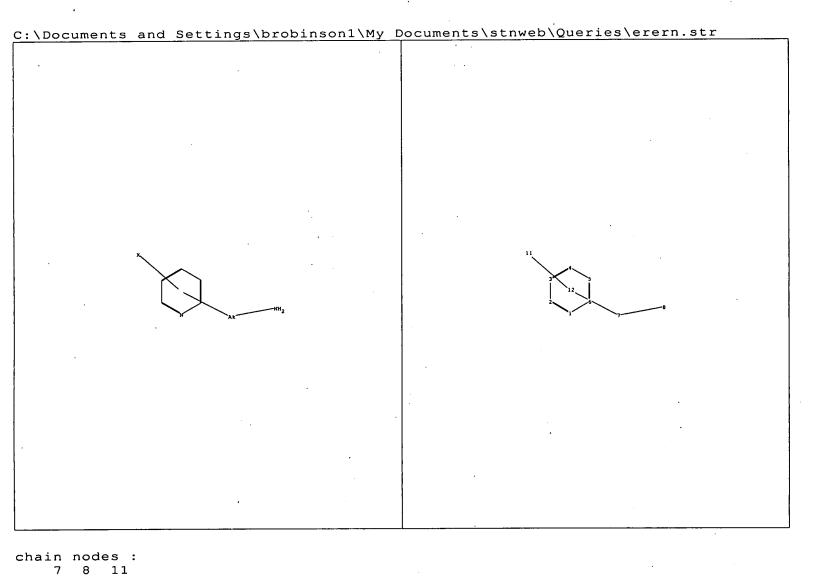
chain nodes : 7 8

Match level:
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:Atom

```
C:\Documents and Settings\brobinson1\My Documents\stnweb\Queries\qwj.str
```

```
ring nodes :
   1 2 3 4
chain bonds :
   7-8
ring bonds :
   1-2 1-6 2-3 3-4 4-5
exact/norm bonds :
   7-8
normalized bonds :
   1-2 1-6 2-3 3-4 4-5 5-6
isolated ring systems :
   containing 1:
Connectivity:
   7:2 E exact RC ring/chain
Match level :
   1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS
                                                         8:CLASS 9:Atom
   11:CLASS 12:Atom
```

chain nodes : 7 8 11



```
7-8
normalized bonds :
    1-2  1-6  2-3  3-4  4-5  5-6
isolated ring systems :
    containing 1 :

Connectivity :
    7:2 E exact RC ring/chain
Match level :
    1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:Atom 11:CLASS 12:Atom
```

ring nodes :

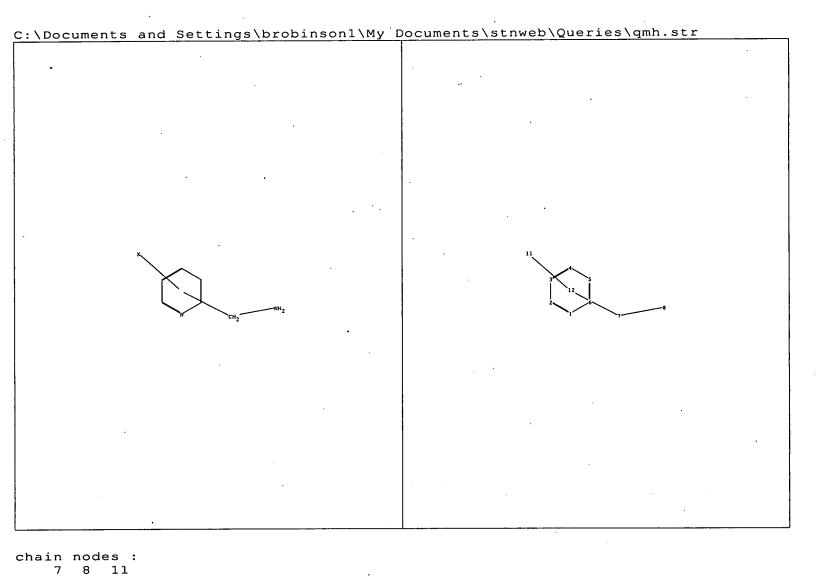
chain bonds : 7-8 ring bonds :

1 2 3 4

exact/norm bonds :

5 6

1-2 1-6 2-3 3-4 4-5 5-6



```
1 2 3 4 5 6

chain bonds:
    7-8

ring bonds:
    1-2 1-6 2-3 3-4 4-5 5-6

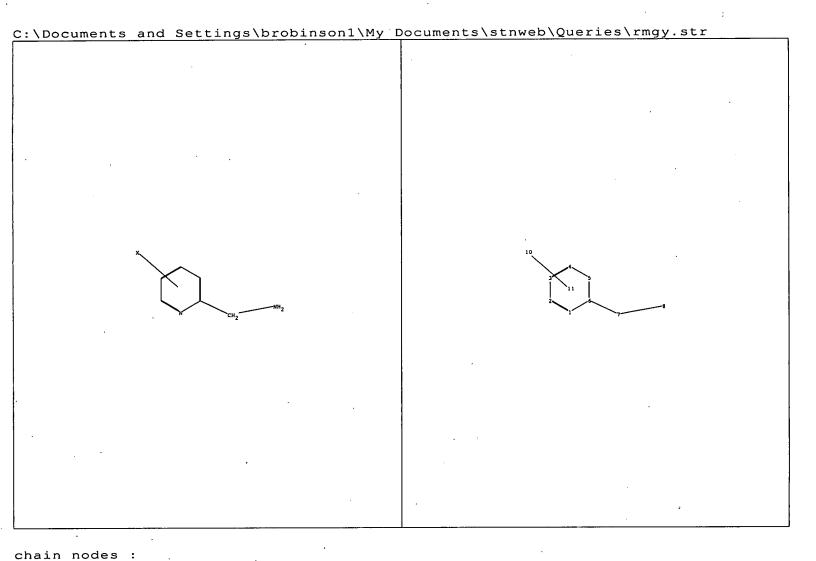
exact bonds:
    7-8

normalized bonds:
    1-2 1-6 2-3 3-4 4-5 5-6

isolated ring systems:
    containing 1:

Match level:
    1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:Atom 11:CLASS 12:Atom
```

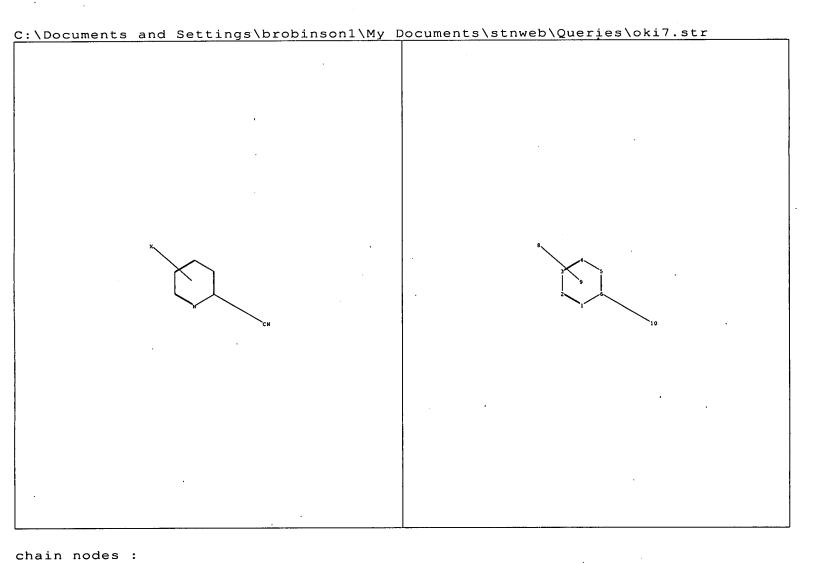
ring nodes :



```
ring nodes :
    1  2  3  4  5  6
chain bonds :
    6-7  7-8
ring bonds :
    1-2  1-6  2-3  3-4  4-5  5-6
exact bonds :
    6-7  7-8
normalized bonds :
    1-2  1-6  2-3  3-4  4-5  5-6
isolated ring systems :
    containing 1 :

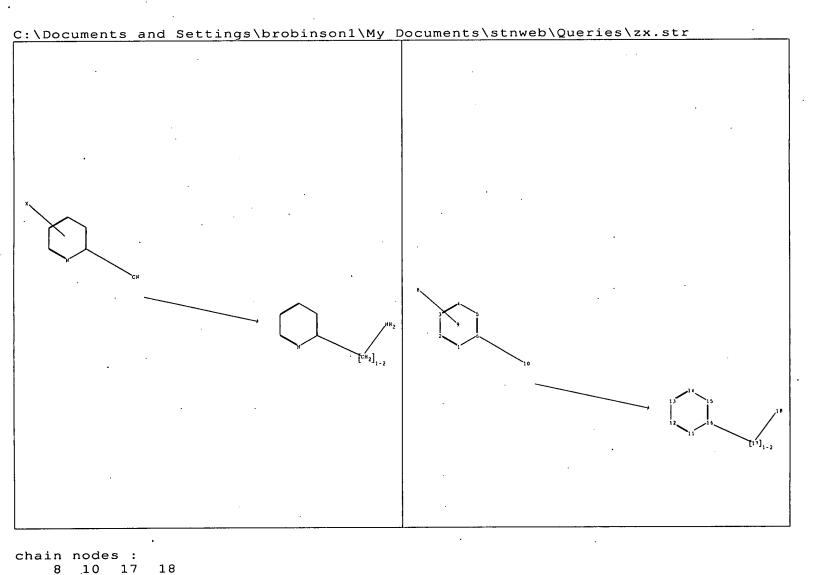
Match level :
    1:Atom  2:Atom  3:Atom  4:Atom  5:Atom  6:Atom  7:CLASS  8:CLASS  10:CLASS  11:Atom
```

7 8 10



```
8 10
ring nodes :
    1 2 3 4 5 6
chain bonds :
    6-10
ring bonds :
    1-2 1-6 2-3 3-4 4-5 5-6
exact bonds :
    6-10
normalized bonds :
    1-2 1-6 2-3 3-4 4-5 5-6
isolated ring systems :
    containing 1 :

Match level :
    1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 8:CLASS 9:Atom 10:CLASS
```



```
1 2 3 4
               5 6 11 12 13 14
chain bonds :
    6-10 16-17 17-18
ring bonds :
                                          11-16 12-13 13-14
                                                                 14-15 15-16
    1-2 1-6 2-3 3-4
                        4-5 5-6 11-12
exact bonds :
    6-10 16-17 17-18
normalized bonds :
    1-2 1-6 2-3 3-4
                        4-5 5-6 11-12 11-16 12-13 13-14 14-15 15-16
isolated ring systems :
    containing 1 : 11 :
Match level :
    1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 8:CLASS 9:Atom 10:CLASS 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:CLASS 18:CLASS
fragments assigned reactant role:
   containing 1
fragments assigned product role:
    containing 11
```

18

ring nodes :

Connecting via Winsock to STN

```
Welcome to STN International!
                               Enter x:x
LOGINID:sssptal612bxr
PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2
                     Welcome to STN International
                  Web Page for STN Seminar Schedule - N. America
 NEWS
                  WPIDS/WPIX enhanced with new FRAGHITSTR display format
 NEWS
          MAR 15
                  CASREACT coverage extended
 NEWS
          MAR 16
                  MARPAT now updated daily
          MAR 20
 NEWS
          MAR 22
                  LWPI reloaded
 NEWS
 NEWS
          MAR 30
                  RDISCLOSURE reloaded with enhancements
                  JICST-EPLUS removed from database clusters and STN
 NEWS
       7
          APR 02
                  GENBANK reloaded and enhanced with Genome Project ID field.
 NEWS
          APR 30
                  CHEMCATS enhanced with 1.2 million new records
 NEWS
         APR 30
                  CA/CAplus enhanced with 1870-1889 U.S. patent records
 NEWS 10
         APR 30
 NEWS 11
          APR 30
                  INPADOC replaced by INPADOCDB on STN
 NEWS 12
          MAY 01
                  New CAS web site launched
 NEWS 13
          MAY 08
                  CA/CAplus Indian patent publication number format defined
 NEWS 14
          MAY 14
                  RDISCLOSURE on STN Easy enhanced with new search and display
 NEWS 15
          MAY 21
                  BIOSIS reloaded and enhanced with archival data
 NEWS 16
          MAY 21
                  TOXCENTER enhanced with BIOSIS reload
 NEWS 17
          MAY 21
                  CA/CAplus enhanced with additional kind codes for German
                  patents
          MAY 22
                  CA/CAplus enhanced with IPC reclassification in Japanese
 NEWS 18
                  patents
                  CA/CAplus enhanced with pre-1967 CAS Registry Numbers
 NEWS 19
          JUN 27
 NEWS 20
          JUN 29
                  STN Viewer now available
                  STN Express, Version 8.2, now available
 NEWS 21
          JUN 29
 NEWS 22
          JUL 02
                  LEMBASE coverage updated
 NEWS 23
          JUL 02
                  LMEDLINE coverage updated
 NEWS 24
          JUL 02
                  SCISEARCH enhanced with complete author names
 NEWS 25
          JUL 02
                  CHEMCATS accession numbers revised
 NEWS 26
          JUL 02
                  CA/CAplus enhanced with utility model patents from China
               29 JUNE 2007: CURRENT WINDOWS VERSION IS V8.2,
 NEWS EXPRESS
               CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 4 MAY 2007.
               STN Operating Hours Plus Help Desk Availability
 NEWS HOURS
               Welcome Banner and News Items
 NEWS LOGIN
               For general information regarding STN implementation of IPC 8
 NEWS IPC8
Enter NEWS followed by the item number or name to see news on that
```

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* * * * * STN Columbus

FILE 'HOME' ENTERED AT 11:12:22 ON 06 JUL 2007

=>

=> file reg COST IN U.S. DOLLARS

SINCE FILE TOTAL **ENTRY** SESSION 0.21

0.21

FULL ESTIMATED COST

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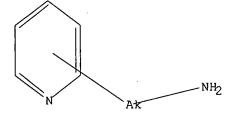
http://www.cas.org/support/stngen/stndoc/properties.html

=> Uploading C:\Documents and Settings\brobinson1\My Documents\stnweb\Queries\2a323f.str

STRUCTURE UPLOADED L1

=> d 11L1 HAS NO ANSWERS

1.1 STR



10535723

Structure attributes must be viewed using STN Express query preparation.

=> s 11

SAMPLE SEARCH INITIATED 11:14:24 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 150568 TO ITERATE

BATCH

2000 ITERATIONS 1.3% PROCESSED

7 ANSWERS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:

ONLINE **INCOMPLETE**

PROJECTED ITERATIONS:

2988464 TO 3034256

INCOMPLETE

PROJECTED ANSWERS:

9162 TO 11916

L2

7 SEA SSS SAM L1

=>

Uploading C:\Documents and Settings\brobinson1\My Documents\stnweb\Queries\rererh.str

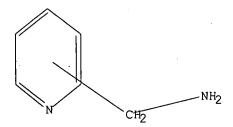
L3 STRUCTURE UPLOADED

=> d 13

L3 HAS NO ANSWERS

L3

STR



Structure attributes must be viewed using STN Express query preparation.

=> s 13

SAMPLE SEARCH INITIATED 11:15:10 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 150568 TO ITERATE

1.3% PROCESSED

2000 ITERATIONS

6 ANSWERS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:

ONLINE **INCOMPLETE**

INCOMPLETE BATCH

PROJECTED ITERATIONS:

2988464 TO 3034256

PROJECTED ANSWERS:

10309

7759 TO

L4

6 SEA SSS SAM L3

Uploading C:\Documents and Settings\brobinson1\My Documents\stnweb\Queries\qwj.str

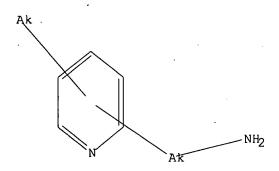
Updated Search

L5 STRUCTURE UPLOADED

=> d 15

L5 HAS NO ANSWERS

· L5 STR



Structure attributes must be viewed using STN Express query preparation.

=> s 15SAMPLE SEARCH INITIATED 11:16:58 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 150568 TO ITERATE

2000 ITERATIONS 1.3% PROCESSED INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **INCOMPLETE**

BATCH **INCOMPLETE**

PROJECTED ITERATIONS: 2988464 TO 3034256 4981 TO 7063

PROJECTED ANSWERS:

L6

4 SEA SSS SAM L5

=> Uploading C:\Documents and Settings\brobinson1\My Documents\stnweb\Queries\erern.str

4 ANSWERS

0 ANSWERS

STRUCTURE UPLOADED L7

=> s 17SAMPLE SEARCH INITIATED 11:17:38 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 150568 TO ITERATE

1.3% PROCESSED 2000 ITERATIONS INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED) SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **INCOMPLETE**

> BATCH **INCOMPLETE**

2988464 TO 3034256 PROJECTED ITERATIONS: PROJECTED ANSWERS: 0 TO

O SEA SSS SAM L7 1.8

Updated Search

10535723 -

=>

Uploading C:\Documents and Settings\brobinson1\My Documents\stnweb\Queries\qmh.str

L9 STRUCTURE UPLOADED

=> s 19

SAMPLE SEARCH INITIATED 11:18:21 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 150568 TO ITERATE

2000 ITERATIONS 1.3% PROCESSED

0 ANSWERS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **INCOMPLETE**

BATCH **INCOMPLETE**

PROJECTED ITERATIONS:

2988464 TO 3034256

PROJECTED ANSWERS:

O TO

L10

0 SEA SSS SAM L9

Uploading C:\Documents and Settings\brobinson1\My Documents\stnweb\Queries\rmgy.str

STRUCTURE UPLOADED

=> s 111

SAMPLE SEARCH INITIATED 11:19:11 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 9663 TO ITERATE

20.7% PROCESSED

2000 ITERATIONS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

COMPLETE BATCH

PROJECTED ITERATIONS:

187369 TO 199151

PROJECTED ANSWERS:

7 TO 379

L12

2 SEA SSS SAM L11

=> s 111 full

THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 171.65 U.S. DOLLARS DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y) /N or END:y

FULL SEARCH INITIATED 11:19:15 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 192512 TO ITERATE

100.0% PROCESSED 192512 ITERATIONS

66 ANSWERS

2 ANSWERS

SEARCH TIME: 00.00.01

66 SEA SSS FUL L11

=> file hcaplus

COST IN U.S. DOLLARS

SINCE FILE TOTAL

> ENTRY SESSION

FULL ESTIMATED COST

176.60 176.81

FILE 'HCAPLUS' ENTERED AT 11:19:19 ON 06 JUL 2007 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

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FILE COVERS 1907 - 6 Jul 2007 VOL 147 ISS 3 FILE LAST UPDATED: 5 Jul 2007 (20070705/ED)

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=> s 11389 L13 L14

=> s 1113/prep L113 NOT. FOUND

The L-number entered has not been defined in this session, or it has been deleted. To see the L-numbers currently defined in this session, enter DISPLAY HISTORY at an arrow prompt (=>).

=> s 113/prep 89 L13 4427949 PREP/RL 57 L13/PREP L15

(L13 (L) PREP/RL)

=> file reg COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 2.60 179.41 FULL ESTIMATED COST

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http://www.cas.org/support/stngen/stndoc/properties.html

=>

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T.16 STRUCTURE UPLOADED

=> s 116

SAMPLE SEARCH INITIATED 11:20:38 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED -950 TO ITERATE

100.0% PROCESSED

950 ITERATIONS

13 ANSWERS

SEARCH TIME: 00.00.01

ONLINE **COMPLETE** FULL FILE PROJECTIONS:

BATCH **COMPLETE**

PROJECTED ITERATIONS:

17151 TO 20849

PROJECTED ANSWERS:

44 TO 476

13 SEA SSS SAM L16 L17

=> s 116 full

THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 171.65 U.S. DOLLARS DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y) /N or END:y FULL SEARCH INITIATED 11:20:43 FILE 'REGISTRY' 17958 TO ITERATE FULL SCREEN SEARCH COMPLETED -

100.0% PROCESSED 17958 ITERATIONS 338 ANSWERS

SEARCH TIME: 00.00.01

338 SEA SSS FUL L16 L18

=> file hcaplus

COST IN U.S. DOLLARS

SINCE FILE TOTAL

> ENTRY SESSION

FULL ESTIMATED COST 172.55 351.96

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L12 2 S L11 L13 66 S L11 FULL FILE 'HCAPLUS' ENTERED AT 11:19:19 ON 06 JUL 2007

L14 89 S L13 L15 57 S L13/PREP

FILE 'REGISTRY' ENTERED AT 11:19:38 ON 06 JUL 2007 STRUCTURE UPLOADED L16 L17 13 S L16 338 S L16 FULL L18

FILE 'HCAPLUS' ENTERED AT 11:20:46 ON 06 JUL 2007 L19 455 S L18/RCT

=> s 119 and 115 36 L19 AND L15

=> file req COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 2.60 354.56

FULL ESTIMATED COST

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http://www.cas.org/support/stngen/stndoc/properties.html

```
=> e nickel/rn
                    99999-98-1/RN
E1
             1
E2
             1
                    99999-99-2/RN
E.3
             0 --> NICKEL/RN
**** END OF FIELD ****
=> e nickel/cn
                    NICKASE TRAA (PLASMID PLW1071) GENE TRAA)/CN
             1
E2
             1
                    NICKASE-HELICASE (PLASMID TI PLASMID PTI15955 GENE TRAA)/CN
E3
             1
               --> NICKEL/CN
                    NICKEL (0), BIS (METHANETRICARBONITRILATO) DINITROSYLBIS (TRICY
E4
             1
                    CLOHEXYLPHOSPHINE) DI-/CN
             1
                    NICKEL (1+) ACETYLACETONATE/CN
E5
                    NICKEL (1+), HYDROTRIS (TRIETHYLPHOSPHINE) -/CN
E6
             1
                    NICKEL (19.2-31.0), ZINC (69.0-80.8) (ATOMIC)/CN
E7
             1
E8
             1
                    NICKEL (2+) ORTHOPHOSPHATE OCTAHYDRATE/CN
                    NICKEL (2+), HEXAAMMINE-, BIS (METABORATE)/CN
Ε9
             1
                    NICKEL (25.6), TIN (1.5), ZINC (72.9) (ATOMIC)/CN
             1
E10
                    NICKEL (58NI1+)/CN
             1
E11
                    NICKEL (ADENINE) DIBROMIDE/CN
E12
=> s e3
             1 NICKEL/CN
L21
=> file hcaplus
                                                   SINCE FILE
                                                                    TOTAL
```

COST IN U.S. DOLLARS

SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST

5.40
359.96

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=> s 121/catalyst 'CATALYST' IS NOT A VALID CROSSOVER QUALIFIER FOR L21 Answer sets created in a different file may be field qualified with a limited set of qualifiers. Enter HELP CROSSOVER at an arrow prompt

(=>) for specific information.

=> d his

(FILE 'HOME' ENTERED AT 11:12:22 ON 06 JUL 2007)

(L21 (L) CAT/RL)

FILE 'REGISTRY' ENTERED AT 11:12:38 ON 06 JUL 2007 STRUCTURE UPLOADED L1L2 7 S L1 STRUCTURE UPLOADED L3 6 S L3 L4STRUCTURE UPLOADED L5 4 S L5 L6 STRUCTURE UPLOADED L7 r_8 0 S L7 STRUCTURE UPLOADED L9 0 S L9 L10 L11 STRUCTURE UPLOADED L12 2 S L11 66 S L11 FULL L13 FILE 'HCAPLUS' ENTERED AT 11:19:19 ON 06 JUL 2007 89 S L13 L1457 S L13/PREP L15 FILE 'REGISTRY' ENTERED AT 11:19:38 ON 06 JUL 2007 STRUCTURE UPLOADED L16 13 S L16 L17 338 S L16 FULL L18 FILE 'HCAPLUS' ENTERED AT 11:20:46 ON 06 JUL 2007

455 S L18/RCT 36 S L19 AND L15

L19

L20

FILE 'REGISTRY' ENTERED AT 11:21:03 ON 06 JUL 2007 E NICKEL/RN

E NICKEL/CN

L21 1 S E3

FILE 'HCAPLUS' ENTERED AT 11:21:21 ON 06 JUL 2007

L22 342935 S L21 L23 . 34808 S L21/CAT

=> s 122 and 123

L24 34808 L22 AND L23

=> s 122 and 120

L25 2 L22 AND L20

=> d 125, ibib abs hitstr, 1-2

L25 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2004:427623 HCAPLUS

DOCUMENT NUMBER:

141:7024

TITLE:

A novel process for the preparation of

2-aminomethylpyridine derivatives via Ni-catalized

hydrogenation of 2-cyanopyridine derivatives

INVENTOR(S):

Vangelisti, Manuel

PATENT ASSIGNEE(S):

Bayer Cropscience Sa, Fr. Eur. Pat. Appl., 6 pp.

CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE:

SOURCE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT	NO.	<u> </u>		KIN)	DATE		i			ION I			D7	ATE		
EP 142	2221			Α1		2004	0526	,	EP 20	002-	3562	36		20	0021	120	
	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,			
						RO,											
WO 200	404613	1.4		A1		2004	0603	1	WO 2	003-	EP14	392		20	0031	118	
W:	ΑE,	AG,	AL,	AM,	AT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	ΒZ,	CA,	CH,	
						DE,											
	GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	ĴΡ,	ΚE,	KG,	KP,	KR,	ΚZ,	LC,	
						LV,											
•						PT,											
						UA,											
RW	: BW,															ΑZ,	
			-			ТJ,											
						HU,											
						CI,											ΤG
AU 200						2004											
BR 200	30144	61															
EP 156	5440			A1		2005	0824		EP 2	003-	7824	83		20	0031	118	
EP 156				В1		2006											
. R:	AT,					ES;	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,	
						RO,											
CN 171	-		•			2005										118	
JP 200	65081	43		T		2006	0309		JP 2	004-	5527	09		2	0031	118	
JP 200 AT 348	811			Т		2007	0115		AT 2	003-	7824	83		2	0031	118	
US 200						2006											
RIORITY AP												36					

WO 2003-EP14892 W 20031118

OTHER SOURCE(S):

CASREACT 141:7024; MARPAT 141:7024

(Y)0?3

The invention relates to a process for the preparation of 2-aminomethylpyridine derivs. of formula I [wherein: X is halogen atom; each Y may be the same or different and may be a halogen atom, a halogenoalkyl, an alkoxycarbonyl or an alkylsulfonyl], useful as intermediates for preparation of pesticides. 2-Aminomethyl-3-chloro-5-trifluoromethylpyridine was prepared via Raney Ni-catalized hydrogenation of 2-cyano-3-chloro-5-trifluoromethylpyridine with a yield of 97%. The advantages of the proposed preparation of 2-aminomethylpyridine derivs. include the use of Raney nickel catalyst instead of expensive Pd catalyst (the Pd-catalized hydrogenation suffers from the disadvantage of dehalogenation reaction; Pd is also very sensitive to catalysts poisons).

IT 7440-02-0, Raney nickel, uses

RL: CAT (Catalyst use); USES (Uses)

(catalysts; novel process for the preparation of aminomethylpyridine derivs. via Raney Ni-catalized hydrogenation of cyanopyridine derivs.)

RN 7440-02-0 HCAPLUS

CN Nickel (CA INDEX NAME)

Νi

IT 175277-74-4P

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)

(novel process for the preparation of aminomethylpyridine derivs. via Raney Ni-catalized hydrogenation of cyanopyridine derivs.)

RN 175277-74-4 HCAPLUS

CN 2-Pyridinemethanamine, 3-chloro-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

$$_{\text{C1}}^{\text{F3C}}$$
 $_{\text{CH}_2-\text{NH}_2}$

IT 80194-70-3

RL: RCT (Reactant); RACT (Reactant or reagent) (reactant; novel process for the preparation of aminomethylpyridine derivs.

via Raney Ni-catalized hydrogenation of cyanopyridine derivs.)

RN 80194-70-3 HCAPLUS

CN 2-Pyridinecarbonitrile, 3-chloro-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2002:157737 HCAPLUS

DOCUMENT NUMBER:

136:200109

TITLE:

Process for preparation of 2-aminomethylpyridines by

catalytic hydrogenation of 2-cyanopyridines.

INVENTOR(S):

Dann, Norman; Riordan, Peter Dominic; Amin, Mehul

Rasikchandra; Mellor, Michael

PATENT ASSIGNEE(S):

Aventis CropScience SA, Fr.

SOURCE:

PCT Int. Appl., 18 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent[']

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA.	TENT NO.	KIND	DATE	APPLICATION NO.	DATÉ
	2002016322 2002016322			WO 2001-EP10984	20010821
	CO, CR,	CU, CZ,	DE, DK, DM,	BA, BB, BG, BR, BY, BZ, DZ, EC, EE, ES, FI, GB,	GD, GE, GH,
	LS, LT,	LU, LV,	MA, MD, MG,	JP, KE, KG, KP, KR, KZ, MK, MN, MW, MX, MZ, NO, SK, SL, TJ, TM, TR, TT,	NZ, PH, PL,
	US, UZ,	VN, YU,	ZA, ZW		
	DE, DK,	ES, FI,	FR, GB, GR,	SL, SZ, TZ, UG, ZW, AT, IE, IT, LU, MC, NL, PT,	SE, TR, BF,
ΕP				GQ, GW, ML, MR, NE, SN, EP 2001-420128	
			DK, ES, FR, FI, RO, MK,	GB, GR, IT, LI, LU, NL, CY, AL, TR	SE, MC, PT,
CA	2415842	A1	20020228	CA 2001-2415842 AU 2002-13948	20010821
ΕP		A2	20030521	EP 2001-982337	
			DK, ES, FR, FI, RO, MK,	GB, GR, IT, LI, LU, NL, CY, AL, TR	SE, MC, PT,
BR	2001013259	Α	20030715	BR 2001-13259 JP 2002-521198	20010821 20010821
RU	2266900	C2	20051227	RU 2003-107931	20010821
ΑT	348810	T	20070115	CN 2005-10088220 AT 2001-982337 EP 2006-120806	20010821
L. E	.114000	LT.	20070124	21 2000 120000	,

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R: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC,
             NL, PT, SE, TR
     IN 2003MN00064
                          Α
                                 20050204
                                             IN 2003-MN64
     US 2004049048
                                 20040311
                                             US 2003-362728
                                                                     20030611
                          A1
     US 6921828
                                 20050726
                          B2
                                             US 2005-177118
                                                                     20050708
     US 2005250947
                          A1
                                 20051110
                                                                    20000825
PRIORITY APPLN. INFO.:
                                             GB 2000-21066
                                                                 Α
                                             GB 2000-25616
                                                                 Α
                                                                    20001019
                                             EP 2001-420128
                                                                 Α
                                                                    20010607
                                             CN 2001-814622
                                                                 A3 20010821
                                             EP 2001-982337
                                                                 A3 20010821
                                             WO 2001-EP10984
                                                                 W
                                                                    20010821
                                             US 2003-362728
                                                                 A1 20030611
                         CASREACT 136:200109; MARPAT 136:200109
OTHER SOURCE(S):
GI
```

$$(Y)_n$$
 X NH_2

AB Title compds. (I; X = halo; Y = halo, haloalkyl, alkoxycarbonyl, alkylsulfonyl; n = 0-3) were prepared by catalytic hydrogenation of the corresponding 2-cyano derivs. Thus, 3-chloro-2-cyano-5-trifluoromethylpyridine (preparation given) was hydrogenated in MeOH over Pd/C containing HCl at 1 atmospheric to give 95-97% 2-aminomethyl-3-chloro-5-trifluoromethylpyridine hydrochloride.

IT 7440-02-0, Nickel, uses

RL: CAT (Catalyst use); USES (Uses)

(process for preparation of 2-aminomethylpyridines by catalytic

hydrogenation of 2-cyanopyridines)

RN 7440-02-0 HCAPLUS

CN Nickel (CA INDEX NAME)

Ni

IT 326476-49-7P, 2-Aminomethyl-3-chloro-5-trifluoromethylpyridine
 hydrochloride
 RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP
 (Preparation)
 (process for preparation of 2-aminomethylpyridines by catalytic
 hydrogenation of 2-cyanopyridines)

RN 326476-49-7 HCAPLUS

CN 2-Pyridinemethanamine, 3-chloro-5-(trifluoromethyl)-, hydrochloride (1:1) (CA INDEX NAME)

HC1

IT 80194-70-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)

(process for preparation of 2-aminomethylpyridines by catalytic hydrogenation of 2-cyanopyridines)

RN 80194-70-3 HCAPLUS

CN 2-Pyridinecarbonitrile, 3-chloro-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

=> file caold SINCE FILE TOTAL COST IN U.S. DOLLARS ENTRY SESSION 13.14 373.10 FULL ESTIMATED COST SINCE FILE TOTAL DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) ENTRY SESSION CA SUBSCRIBER PRICE -1.56-1.56

FILE 'CAOLD' ENTERED AT 11:22:10 ON 06 JUL 2007 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1907-1966 FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file supports REG1stRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for

more information.

```
=> d his
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(FILE 'HOME' ENTERED AT 11:12:22 ON 06 JUL 2007)
```

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. FILE 'REGISTRY' ENTERED AT 11:12:38 ON 06 JUL 2007
              STRUCTURE UPLOADED
L1
             7 S L1
L2
               STRUCTURE UPLOADED
L3
              6 S L3
L4
               STRUCTURE UPLOADED
L5
L6
              4 S L5
               STRUCTURE UPLOADED
L7
              0 S L7
rs
              STRUCTURE UPLOADED
L9
             0 S L9
L10
              STRUCTURE UPLOADED
L11
             2 S L11
L12
            66 S L11 FULL
L13
     FILE 'HCAPLUS' ENTERED AT 11:19:19 ON 06 JUL 2007
            89 S L13
            57 S L13/PREP
L15
     FILE 'REGISTRY' ENTERED AT 11:19:38 ON 06 JUL 2007
               STRUCTURE UPLOADED
L16
L17
            13 S L16
L18
            338 S L16 FULL
     FILE 'HCAPLUS' ENTERED AT 11:20:46 ON 06 JUL 2007
          455 S L18/RCT
L19
            36 S L19 AND L15
L20
     FILE 'REGISTRY' ENTERED AT 11:21:03 ON 06 JUL 2007
            E NICKEL/RN
               E NICKEL/CN
L21
              1 S E3
     FILE 'HCAPLUS' ENTERED AT 11:21:21 ON 06 JUL 2007
L22
         342935 S L21
          34808 S L21/CAT
L23
          34808 S L22 AND L23
L24
              2 S L22 AND L20
L25
     FILE 'CAOLD' ENTERED AT 11:22:10 ON 06 JUL 2007
=> s 122 and 120
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=> s 122 and 120
QUALIFICATION NOT VALID FOR L18
Field code qualifications can only be applied to text
terms.

=> s 118 and 121 10 L18 0 L21 L26 0 L18 AND L21

=> file casreact
COST IN U.S. DOLLARS

SINCE FILE TOTAL

FULL ESTIMATED COST ENTRY SESSION 0.45 373.55

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE TOTAL ENTRY SESSION

CA SUBSCRIBER PRICE 0.00 -1.56

FILE 'CASREACT' ENTERED AT 11:22:48 ON 06 JUL 2007 USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT COPYRIGHT' (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications.

FILE CONTENT: 1840 - 30 Jun 2007 VOL 147 ISS 2

New CAS Information Use Policies, enter HELP USAGETERMS for details.

Some CASREACT records are derived from the ZIC/VINITI database (1974-1999) provided by InfoChem, INPI data prior to 1986, and Biotransformations database compiled under the direction of Professor Dr. Klaus Kieslich.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> Uploading C:\Documents and Settings\brobinson1\My Documents\stnweb\Queries\zx.str

L27 STRUCTURE UPLOADED

=> s 127

SAMPLE SEARCH INITIATED 11:24:40 FILE 'CASREACT'

SCREENING COMPLETE - 332 REACTIONS TO VERIFY FROM 49 DOCUMENTS

100.0% DONE 332 VERIFIED 1 HIT RXNS 1 DOCS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

PROJECTED VERIFICATIONS: 5548 TO 7732 PROJECTED ANSWERS: 1 TO 79

L28 1 SEA SSS SAM L27 (1 REACTIONS)

=> s 127 full
THE ESTIMATED SEARCH COST FOR FILE 'CASREACT' IS 113.10 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
FULL SEARCH INITIATED 11:24:47 FILE 'CASREACT'
SCREENING COMPLETE - 7961 REACTIONS TO VERIFY FROM 1065 DOCUMENTS

SEARCH TIME: 00.00.05

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7 SEA SSS FUL L27 (
                                  11 REACTIONS)
\Rightarrow d 129, ibib abs hitrxn, 1-7
'HITRXN' IS NOT A VALID FORMAT FOR FILE 'CASREACT'
The following are valid formats:
ABS ----- GI and AB
ALL ----- BIB, AB, IND, RE, Single-step Reactions
APPS ----- AI, PRAI
BIB ----- AN, plus Bibliographic Data
CAN ----- List of CA abstract numbers without answer numbers
CBIB ----- AN, plus Compressed Bibliographic Data
DALL ----- ALL, delimited (end of each field identified)
IABS ----- ABS, indented with text labels
IALL ----- ALL, indented with text labels
IBIB ----- BIB, indented with text labels
IND ----- Indexing data
IPC ----- International Patent Classifications
ISTD ----- STD, indented with text labels
OBIB ----- AN, plus Bibliographic Data (original)
OIBIB ----- OBIB, indented with text labels
SBIB ----- BIB, no citations
SIBIB ----- IBIB, no citations
MAX ----- Same as ALL
PATS ----- PI, SO
SCAN ----- TI and FCRD (random display, no answer number. SCAN
            must be entered on the same line as DISPLAY, e.g.,
            D SCAN.)
SSRX ----- Single-Step Reactions (Map, Diagram, and Summary for
            all single-step reactions)
STD ----- BIB, IPC, and NCL
CRD ----- Compact Display of All Hit Reactions
CRDREF ---- Compact Reaction Display and SO, PY for Reference
FHIT ----- Reaction Map, Diagram, and Summary for first
            hit reaction
FHITCBIB --- FHIT, AN plus CBIB
FCRD ----- First hit in Compact Reaction Display (CRD) format
FCRDREF ---- First hit in Compact Reaction Display (CRD) format with
            CA reference information (SO, PY). (Default)
FPATH ----- PATH, plus Reaction Summary for the "long path"
FSPATH ---- SPATH, plus Reaction Summary for the "short path"
HIT ----- Reaction Map, Reaction Diagram, and Reaction
             Summary for all hit reactions and fields containing
            hit terms
OCC ----- All hit fields and the number of occurrences of the
             hit terms in each field. Includes total number of
            HIT, PATH, SPATH reactions. Labels reactions that have
             incomplete verifications.
PATH ----- Reaction Map and Reaction Diagram for the "long
             path". Displays all hit reactions, except those
             whose steps are totally included within another hit
             reaction which is displayed
RX ----- Hit Reactions (Map, Diagram, Summary for all hit reactions)
```

```
RXG ----- Hit Reaction Graphics (Map and Diagram for all hit reactions)
RXL ----- Hit Reaction Long (Map, Diagram, Summary for all hit reactions)
RXS ----- Hit Reaction Summariers (Map and Summary for all hit reactions)
SPATH ---- Reaction Map and Reaction Diagram for the "short path". Displays all single step reactions which contain a hit substance. Also displays those multistep reactions that have a hit substance in both the first and last steps of the reaction, except for those hit reactions whose steps are totally included within another hit reaction which is displayed
```

To display a particular field or fields, enter the display field codes. For a list of the display field codes, enter HELP DFIELDS at an arrow prompt (=>). Examples of combinations include: D TI; D BIB RX; D TI, AU, FCRD. The information is displayed in the same order as the specification. All of the formats, except CRD, CRDREF, FHIT, PATH, FPATH, SPATH, FSPATH, FCRD, FCRDREF, HIT, RX, RXG, RXS, SCAN, and OCC, may be used with the DISPLAY command to display the record for a specified Accession Number.

ENTER DISPLAY FORMAT (FCRDREF):d his 'D' IS NOT A VALID FORMAT FOR FILE 'CASREACT'

The following are valid formats:

```
ABS ----- GI and AB
ALL ----- BIB, AB, IND, RE, Single-step Reactions
APPS ----- AI, PRAI
BIB ----- AN, plus Bibliographic Data
CAN ----- List of CA abstract numbers without answer numbers
CBIB ----- AN, plus Compressed Bibliographic Data
DALL ----- ALL, delimited (end of each field identified)
IABS ----- ABS, indented with text labels
IALL ----- ALL, indented with text labels
IBIB ----- BIB, indented with text labels
IND ----- Indexing data
IPC ----- International Patent Classifications
ISTD ----- STD, indented with text labels
OBIB ----- AN, plus Bibliographic Data (original)
OIBIB ----- OBIB, indented with text labels
SBIB ----- BIB, no citations
SIBIB ----- IBIB, no citations
MAX ----- Same as ALL
PATS ----- PI, SO
SCAN ----- TI and FCRD (random display, no answer number. SCAN
            must be entered on the same line as DISPLAY, e.g.,
            D SCAN.)
SSRX ----- Single-Step Reactions (Map, Diagram, and Summary for
            all single-step reactions)
STD ----- BIB, IPC, and NCL
CRD ----- Compact Display of All Hit Reactions
CRDREF ---- Compact Reaction Display and SO, PY for Reference
FHIT ----- Reaction Map, Diagram, and Summary for first
            hit reaction
FHITCBIB --- FHIT, AN plus CBIB
FCRD ----- First hit in Compact Reaction Display (CRD) format
```

```
FCRDREF ---- First hit in Compact Reaction Display (CRD) format with
            CA reference information (SO, PY). (Default)
FPATH ----- PATH, plus Reaction Summary for the "long path"
FSPATH ---- SPATH, plus Reaction Summary for the "short path"
HIT ----- Reaction Map, Reaction Diagram, and Reaction
            Summary for all hit reactions and fields containing
            hit terms
OCC ----- All hit fields and the number of occurrences of the
            hit terms in each field. Includes total number of
            HIT, PATH, SPATH reactions. Labels reactions that have.
            incomplete verifications.
PATH ----- Reaction Map and Reaction Diagram for the "long
            path". Displays all hit reactions, except those
            whose steps are totally included within another hit
            reaction which is displayed
RX ----- Hit Reactions (Map, Diagram, Summary for all hit reactions)
RXG ----- Hit Reaction Graphics (Map and Diagram for all hit reactions)
RXL ----- Hit Reaction Long (Map, Diagram, Summary for all hit reactions)
RXS ----- Hit Reaction Summariers (Map and Summary for all hit reactions)
SPATH ----- Reaction Map and Reaction Diagram for the "short
            path". Displays all single step reactions which
            contain a hit substance. Also displays those
            multistep reactions that have a hit substance in both
            the first and last steps of the reaction, except for
             those hit reactions whose steps are totally included
            within another hit reaction which is displayed
```

To display a particular field or fields, enter the display field codes. For a list of the display field codes, enter HELP DFIELDS at an arrow prompt (=>). Examples of combinations include: D TI; D BIB RX; D TI, AU, FCRD. The information is displayed in the same order as the specification. All of the formats, except CRD, CRDREF, FHIT, PATH, FPATH, SPATH, FSPATH, FCRD, FCRDREF, HIT, RX, RXG, RXS, SCAN, and OCC, may be used with the DISPLAY command to display the record for a specified Accession Number.

ENTER DISPLAY FORMAT (FCRDREF):end

=> d his

(FILE 'HOME' ENTERED AT 11:12:22 ON 06 JUL 2007)

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FILE 'REGISTRY' ENTERED AT 11:12:38 ON 06 JUL 2007
                 STRUCTURE UPLOADED
L1
               7 S L1
L2
L3
                 STRUCTURE UPLOADED
L4
               6 S L3
                 STRUCTURE UPLOADED
L5
               4 S L5
L6
                 STRUCTURE UPLOADED
L7
               0 S.L7
\Gamma8
                 STRUCTURE UPLOADED
L9
L10
               0 S L9
                 STRUCTURE UPLOADED
L11
L12
               2 S L11
L13
              66 S L11 FULL
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FILE 'HCAPLUS' ENTERED AT 11:19:19 ON 06 JUL 2007 89 S L13

T.14

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57 S L13/PREP
L15
     FILE 'REGISTRY' ENTERED AT 11:19:38 ON 06 JUL 2007
                STRUCTURE UPLOADED
L16
             13 S L16
L17
            338 S L16 FULL
L18
     FILE 'HCAPLUS' ENTERED AT 11:20:46 ON 06 JUL 2007
L19
            455 S L18/RCT
L20
             36 S L19 AND L15
   FILE 'REGISTRY' ENTERED AT 11:21:03 ON 06 JUL 2007
                E NICKEL/RN
                E NICKEL/CN
L21
              1 S E3
     FILE 'HCAPLUS' ENTERED AT 11:21:21 ON 06 JUL 2007
         342935 S L21
L22
          34808 S L21/CAT
L23
          34808 S L22 AND L23
L24
              2 S L22 AND L20
L25
     FILE 'CAOLD' ENTERED AT 11:22:10 ON 06 JUL 2007
              0 S L18 AND L21
L26
     FILE 'CASREACT' ENTERED AT 11:22:48 ON 06 JUL 2007
                STRUCTURE UPLOADED
L27
L28
              1 S L27
L29
              7 S L27 FULL
=> d 129, ibib abs fhit, 1-7
L29 ANSWER 1 OF 7 CASREACT COPYRIGHT 2007 ACS on STN
                         144:331318 CASREACT
ACCESSION NUMBER:
                         Biological evaluation of isothiazologuinolones
TITLE:
                         containing aromatic heterocycles at the 7-position: In
                         vitro activity of a series of potent antibacterial
                         agents that are effective against methicillin-
                         resistant Staphylococcus aureus
                         Wiles, Jason A.; Song, Yongsheng; Wang, Qiuping;
AUTHOR(S):
                         Lucien, Edlaine; Hashimoto, Akihiro; Cheng, Jijun;
                         Marlor, Christopher W.; Ou, Yangsi; Podos, Steven D.;
                         Thanassi, Jane A.; Thoma, Christy L.; Deshpande,
                         Milind; Pucci, Michael J.; Bradbury, Barton J.
                         Achillion Pharmaceuticals, Inc., New Haven, CT,
CORPORATE SOURCE:
                         06511-6653, USA
                         Bioorganic & Medicinal Chemistry Letters (2006),
SOURCE:
                         16(5), 1277-1281
                         CODEN: BMCLE8; ISSN: 0960-894X
                         Elsevier B.V.
PUBLISHER:
                        Journal
DOCUMENT TYPE:
                         English
LANGUAGE:
     A diverse series of 9H-isothiazolo[5,4-b]quinoline-3,4-diones containing
     heteroarom. groups at the 7-position was prepared via palladium-catalyzed
     cross-coupling. Many of these compds. demonstrated potent
     antistaphylococcal activity (MICs \leq 2~\mu g/mL) against a
     multi-drug-resistant strain (ATCC 700699) and low cytotoxic activity (CC50
     > 100 \mu M) against the human cell line Hep2 (laryngeal carcinoma).
```

RX(46) OF 56 COMPOSED OF RX(40), RX(41) RX(46) CI + CE ===> AD

AD YIELD 100%

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CI 73183-34-3, CE 97483-77-7
RX (40)
          RCT
          RGT
               CK 127-08-2 AcOK
          PRO
               CJ 741709-63-7
               72287-26-4 Palladium, [1,1'-bis(diphenylphosphino-
          CAT
               κP) ferrocene]dichloro-, (SP-4-2)-
          SOL
               67-68-5 DMSO
          CON
               25 hours, 80 deg C
          RCT
               CJ 741709-63-7
RX (41)
          RGT
               CN 1333-74-0 H2
          PRO
               AD 880495-82-9
               7440-05-3 Pd
          CAT
          SOL
               64-19-7 AcOH
          CON
               16 hours, room temperature
                          19
                                THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS
REFERENCE COUNT:
```

L29 ANSWER 2 OF 7 CASREACT COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

BER: 142:240471 CASREACT

TITLE: Preparation of benzodiazepine derivatives as CGRP receptor antagonists

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

INVENTOR(S): Burgey, Christopher S.; Stump, Craig A.; Williams,

Theresa M.

PATENT ASSIGNEE(S):

SOURCE:

GI

Merck & Co., Inc., USA PCT Int. Appl., 79 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

DATE PATENT NO. KIND DATE APPLICATION NO. ____ 20040624 WO 2005013894 Α2 20050217 WO 2004-US20209 WO 2005013894 А3 20060302 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM. AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG AU 2004263080 A1 20050217 AU 2004-263080 20040624 20050217 CA 2004-2529196 20040624 CA 2529196 Α1 20060405 EP 2004-776997 20040624 A2 · EP 1641423 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR 20061004 CN 2004-80017996 20040624 CN 1842526 Α JP 2006-517599 20040624 Т 20070621 JP 2007516183 US 2005-562297 20051222 · US 2006135511 A1 20060622 US 2003-482854P 20030626 PRIORITY APPLN. INFO.: WO 2004-US20209 20040624 MARPAT 142:240471 OTHER SOURCE(S):

Ι

II

$$(R^{2})_{n} \xrightarrow{\mathbb{N}} \mathbb{N} = \mathbb$$

AB Benzodiazepine derivs. of formula I [R1 = ·H, alkyl, cycloalkyl, aryl,
 etc.; R2 = H, alkyl, cycloalkyl, aryl, etc.; R3 = H, alkyl, CO2H,
 alkoxycarbonyl; R4 = H, alkyl, cycloalkyl, aryl, etc.; R5 = H, alkyl,
 cycloalkyl, etc.; n = 1-4; m = 1-9; p = 1-4; W = O, (substituted) NH,
 (substituted) CH2; X = C, S; Y = O, NCONH2, etc.; G, J = N, NCH2, etc.; Q,
 T, U, V = CH, N; with provisos] are prepared as antagonists of CGRP
 receptors, and are useful in the treatment or prevention of diseases in
 which the CGRP is involved, such as headache, migraine and cluster
 headache. The invention is also directed to pharmaceutical compns.
 comprising these compds. and the use of these compds. and compns. in the
 prevention or treatment of such diseases in which CGRP is involved. Thus,
 II was prepared in several steps. The prepared compds. had IC50 values < 50
 μM against CGRP receptor.</pre>

2

STEPS

RX(83) OF 165 COMPOSED OF RX(42), RX(43) RX(83) CI + CS ===> CU

CU

RX(42) RCT CI 20781-20-8, CS 97509-75-6

STAGE(1) RGT E

RGT E 121-44-8 Et3N SOL 127-19-5 AcNMe2 CON 4 hours, 80 deg C

STAGE(2) RGT U 7732-18-5 Water

PRO CT 784155-72-2

RX(43) RCT CT 784155-72-2

STAGE (1)

RGT CN 16853-85-3 LiAlH4

SOL 109-99-9 THF

CON SUBSTAGE(1) 0 deg C

SUBSTAGE(2) 0 deg C -> room temperature
SUBSTAGE(3) 4 hours, room temperature

STAGE (2)

RGT CO 7757-82-6 Na2SO4 SOL 7732-18-5 Water CON room temperature

PRO CU 784155-73-3

L29 ANSWER 3 OF 7 CASREACT COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

141:123579 CASREACT

TITLE:

Discovery and Evaluation of Potent P1 Aryl

Heterocycle-Based Thrombin Inhibitors

AUTHOR(S):

Young, Mary Beth; Barrow, James C.; Glass, Kristen L.; Lundell, George F.; Newton, Christina L.; Pellicore, Janetta M.; Rittle, Kenneth E.; Selnick, Harold G.; Stauffer, Kenneth J.; Vacca, Joseph P.; Williams, Peter D.; Bohn, Dennis; Clayton, Franklin C.; Cook, Jacquelynn J.; Krueger, Julie A.; Kuo, Lawrence C.; Lewis, S. Dale; Lucas, Bobby J.; McMasters, Daniel R.; Miller-Stein, Cynthia; Pietrak, Beth L.; Wallace, Audrey A.; White, Rebecca B.; Wong, Bradley; Yan,

Youwei; Nantermet, Philippe G.

CORPORATE SOURCE:

Medicinal Chemistry, Pharmacology, Biological

Chemistry, Structural Biology, Molecular Systems and Drug Metabolism, Merck Research Laboratories, Merck

and Co. Inc., West Point, PA, 19486, USA

SOURCE:

Journal of Medicinal Chemistry (2004), 47(12),

2995-3008

CODEN: JMCMAR; ISSN: 0022-2623

PUBLISHER:

American Chemical Society

DOCUMENT TYPE:

Journal

LANGUAGE:

English

AB In an effort to discover potent, clin. useful thrombin inhibitors, a rapid analog synthetic approach was used to explore the P1 region. Various benzylamines were coupled to a pyridine/pyrazinone P2-P3 template. One compound, i.e. 2-[6-chloro-3-(2,2-difluoro-2-pyridin-2-yl-ethylamino)-2-oxo-2H-pyrazin-1-yl]-N-(2-[1,2,3]thiadiazol-4-yl-benzyl)acetamide, was found to have a thrombin Ki of 0.84 nM. A study of ortho-substituted five-membered-ring heterocycles was undertaken and subsequently demonstrated that the o-triazole and tetrazole rings were optimal. Combination of these potent P1 aryl heterocycles with a variety of P2-P3 groups produced a compound with an extraordinary thrombin inhibitory activity of 1.4 pM. It is hoped that this potency enhancement in P1 will allow for more diversification in the P2-P3 region to ultimately address addnl. pharmacol. concerns.

RX(158) OF 284 COMPOSED OF RX(84), RX(85) RX(158) FR + EO ===> AD

RX(84) RCT FR 27988-97-2

STAGE(1)

RGT FT 2052-49-5 Bu4NOH

SOL 7732-18-5 Water, 68-12-2 DMF

STAGE(2)

RCT EO 97509-75-6

CON 4 days, room temperature

PRO FS 449758-32-1

RX (85) RCT FS 449758-32-1 RGT CR 1333-74-0 H2 PRO AD 449756-99-4 CAT 7440-05-3 Pd

SOL 64-17-5 EtOH

CON overnight, room temperature, 55 psi

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 4 OF 7 CASREACT COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

141:7024 CASREACT

TITLE:

A novel process for the preparation of

2-aminomethylpyridine derivatives via Ni-catalized

hydrogenation of 2-cyanopyridine derivatives

INVENTOR(S):

Vangelisti, Manuel

PATENT ASSIGNEE(S):

Bayer Cropscience Sa, Fr. Eur. Pat. Appl., 6 pp.

SOURCE:

CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO.	DATE
EP 1422221	A1 20040526	EP 2002-356236	20021120
R: AT, BE,	CH, DE, DK, ES, FR,	GB, GR, IT, LI, LU,	NL, SE, MC, PT,
	LT, LV, FI, RO, MK,		
WO 2004046114	A1 20040603	WO 2003-EP14892	20031118
W: AE, AG,	AL, AM, AT, AU, AZ,	BA, BB, BG, BR, BW,	BY, BZ, CA, CH,
CN. CO.	CR. CU. CZ. DE. DK.	DM. DZ. EC. EE. EG.	ES, FI, GB, GD,

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GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO,
               NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ,
               TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA,
                                                                            ZM,
                                                                                 zw
          RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM,
                                                                            ZW, AM,
               BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,
               TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                                 20040615
                                                  AU 2003-290121
                                                                      20031118
     AU 2003290121
                          A1
     BR 2003014461
                          Α
                                 20050726
                                                  BR 2003-14461
                                                                      20031118
     EP 1565440
                                 20050824
                                                  EP 2003-782483
                                                                      20031118
                          Α1
     EP 1565440
                          В1
                                 20061220
          R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
               IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
     CN 1711244
                                 20051221
                                                  CN 2003-80103328 20031118
                          Α
                           T
                                 20060309
                                                  JP 2004-552709
                                                                      20031118
     JP 2006508143
     AT 348811
                           Т
                                 20070115
                                                  AT 2003-782483
                                                                      20031118
                          Α1
                                 20060105 -
                                                  US 2005-535723
                                                                      20050520
     US 2006004206
                                                  EP 2002-356236
                                                                      20021120
PRIORITY APPLN. INFO.:
                                                  WO 2003-EP14892
                                                                      20031118
OTHER SOURCE(S):
                             MARPAT 141:7024
GΙ
```

The invention relates to a process for the preparation of 2-aminomethylpyridine derivs. of formula I [wherein: X is halogen atom; each Y may be the same or different and may be a halogen atom, a halogenoalkyl, an alkoxycarbonyl or an alkylsulfonyl], useful as intermediates for preparation of pesticides. 2-Aminomethyl-3-chloro-5-trifluoromethylpyridine was prepared via Raney Ni-catalized hydrogenation of 2-cyano-3-chloro-5-trifluoromethylpyridine with a yield of 97%. The advantages of the proposed preparation of 2-aminomethylpyridine derivs. include the use of Raney nickel catalyst instead of expensive Pd catalyst (the Pd-catalized hydrogenation suffers from the disadvantage of dehalogenation reaction; Pd is also very sensitive to catalysts poisons).

RX (1) RCT A 80194-70-3 C 1333-74-0 H2 RGT B 175277-74-4 PRO CAT 7440-02-0 Ni

SOL 64-19-7 AcOH

CON SUBSTAGE(1) room temperature -> 40 deg C, pH 7 SUBSTAGE(2) 2 hours, 40 deg C, 18 bar, pH 7

Raney nickel used NTE

REFERENCE COUNT:

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 5 OF 7 CASREACT COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

CORPORATE SOURCE:

140:272675 CASREACT

TITLE:

Development of a Scaleable Synthesis of a

3-Aminopyrazinone Acetamide Thrombin Inhibitor AUTHOR(S):

Ashwood, Michael S.; Alabaster, Ramon J.; Cottrell,

Ian F.; Cowden, Cameron J.; Davies, Antony J.;

Dolling, Ulf H.; Emerson, Khateeta M.; Gibb, Andrew D.; Hands, David; Wallace, Debra J.; Wilson, Robert D.

Department of Process Research, Merck Sharp and Dohme

Research Laboratories, Hoddesdon, Hertfordshire, EN11

9BU, UK

SOURCE:

Organic Process Research & Development (2004), 8(2),

192-200

CODEN: OPRDFK; ISSN: 1083-6160

PUBLISHER:

American Chemical Society

DOCUMENT TYPE:

Journal English

LANGUAGE:

A scaleable route to 2-{3-[(2,2-difluoro-2-(2-pyridyl)ethyl)amino]-6chloro-2-oxohydropyrazinyl}-N-[(3-fluoro(2-pyridyl))methyl]acetamide (I) is described in which various scaleup issues were addressed to provide a safe, efficient, and robust route for the preparation of multi-kilo amts. of the compound The use of expensive and toxic reagents; notably sodium azide, TMS-cyanide, and Deoxo-Fluor, and the need for specialist equipment were overcome in the preparation of the key fluorinated intermediates 2,2-difluoro-2-(2-pyridyl)ethylamine and 2-aminomethyl-3-fluoropyridine. With minimal isolations and through processing of intermediates, the thrombin inhibitor I was isolated in 36% overall yield.

RX(4) OF 84 ...0 R...

$$C \stackrel{*}{=} N$$

$$O \qquad (4)$$

HC1

YIELD 92%

RCT O 97509-75-6 RX (4)

> S 7647-01-0 HCl, T 1333-74-0 H2 RGT

R 312904-49-7 PRO 7440-05-3 Pd CAT 64-17-5 EtOH SOL

18 hours, 20 deg C, 5 psi CON

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 6 OF 7 CASREACT COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

138:198146 CASREACT

TITLE:

Metabolism-Directed Optimization of 3-Aminopyrazinone Acetamide Thrombin Inhibitors. Development of an Orally Bioavailable Series Containing P1 and P3

Pyridines

AUTHOR(S):

Burgey, Christopher S.; Robinson, Kyle A.; Lyle, Terry A.; Sanderson, Philip E. J.; Lewis, S. Dale; Lucas, Bobby J.; Krueger, Julie A.; Singh, Rominder; Miller-Stein, Cynthia; White, Rebecca B.; Wong, Bradley; Lyle, Elizabeth A.; Williams, Peter D.; Coburn, Craig A.; Dorsey, Bruce D.; Barrow, James C.; Stranieri, Maria T.; Holahan, Marie A.; Sitko, Gary R.; Cook, Jacquelynn J.; McMasters, Daniel R.;

McDonough, Colleen M.; Sanders, William M.; Wallace,

Audrey A.; Clayton, Franklin C.; Bohn, Dennis;

Leonard, Yvonne M.; Detwiler, Theodore J., Jr.; Lynch, Joseph J., Jr.; Yan, Youwei; Chen, Zhongguo; Kuo, Lawrence; Gardell, Stephen J.; Shafer, Jules A.;

Vacca, Joseph P.

CORPORATE SOURCE:

Departments of Medicinal Chemistry, Biological Chemistry, Drug Metabolism Molecular Systems,

Structural Biology and Pharmacology, Merck Research

Laboratories, West Point, PA, 19486, USA

SOURCE:

Journal of Medicinal Chemistry (2003), 46(4), 461-473

CODEN: JMCMAR; ISSN: 0022-2623

PUBLISHER:

American Chemical Society

DOCUMENT TYPE:

Journal English LANGUAGE:

Recent efforts in the field of thrombin inhibitor research have focused on the identification of compds. with good oral bioavailability and pharmacokinetics. In this manuscript we describe a metabolism-based approach to the optimization of the 3-(2-phenethylamino)-6-methylpyrazinone acetamide template which resulted in the modification of each of the three principal components (i.e., P1, P2, P3) comprising this series. As a result of these studies, several potent thrombin inhibitors were identified which exhibit high levels of oral bioavailability and long plasma half-lives.

...W ===> AA... RX(6) OF 261

10535723

$$C = N$$

$$C =$$

RX(6) RCT W 38180-46-0 RGT AB 7664-41-7 NH3, AC 1333-74-0 H2 PRO AA 500305-98-6 CAT 7440-02-0 Ni SOL 64-17-5 EtOH CON 5 hours, 1 atm

NTE Raney nickel used

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 7 OF 7 CASREACT COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

136:200109 CASREACT

TITLE:

Process for preparation of 2-aminomethylpyridines by

catalytic hydrogenation of 2-cyanopyridines.

INVENTOR(S):

Dann, Norman; Riordan, Peter Dominic; Amin, Mehul

Rasikchandra; Mellor, Michael

PATENT ASSIGNEE(S):

Aventis CropScience SA, Fr. PCT Int. Appl., 18 pp.

SQURCE:

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO.	DATE
	A2 20020228 A3 20020606	WO 2001-EP10984	20010821
W: AE, AG, CO, CR, GM, HR, LS, LT, PT, RO, US, UZ,	AL, AM, AT, AU, AZ, CU, CZ, DE, DK, DM, HU, ID, IL, IN, IS, LU, LV, MA, MD, MG, RU, SD, SE, SG, SI, VN, YU, ZA, ZW	DZ, EC, EE, ES, FI, JP, KE, KG, KP, KR, MK, MN, MW, MX, MZ, SK, SL, TJ, TM, TR,	GB, GD, GE, GH, KZ, LC, LK, LR, NO, NZ, PH, PL, TT, TZ, UA, UG,
DE, DK, BJ, CF,	KE, LS, MW, MZ, SD, ES, FI, FR, GB, GR, CG, CI, CM, GA, GN,	IE, IT, LU, MC, NL, GQ, GW, ML, MR, NE,	PT, SE, TR, BF, SN, TD, TG
R: AT, BE, IE, SI, CA 2415842 AU 200213948	A1 20020424 CH, DE, DK, ES, FR, LT, LV, FI, RO, MK, A1 20020228 A 20020304	GB, GR, IT, LI, LU, CY, AL, TR CA 2001-2415842 AU 2002-13948	NL, SE, MC, PT, 20010821 20010821
EP 1311483 R: AT, BE,	A2 20030521 B1 20061220 CH, DE, DK, ES, FR, LT, LV, FI, RO, MK,	GB, GR, IT, LI, LU,	

BR	2001013259	Α	20030715	BR 2001-13259	20010821
JP	2004506716	T	20040304	JP 2002-521198	20010821
RU	2266900	C2	20051227	RU 2003-107931	20010821
CN	1721406	Α	20060118	CN 2005-10088220	20010821
AT	348810	T	20070115	AT 2001-982337	20010821
EP	1746089	A1	20070124	EP 2006-120806	20010821
	R: AT, BE,	CH, CY	, DE, DK, E	S, FI, FR, GB, GR, IE,	IT, LI, LU, MC,
	NL, PT,	SE, TR		•	
IN	2003MN00064	A	20050204	IN 2003-MN64	20030113
US	2004049048	A1	20040311	US 2003-362728	20030611
US	6921828	В2	20050726		
US	2005250947	A1	20051110	US 2005-177118	20050708
PRIORITY	APPLN. INFO	.:		GB 2000-21066	20000825
		•		GB 2000-25616	20001019
				EP 2001-420128	20010607
				CN 2001-814622	20010821
				EP 2001-982337	20010821
				WO 2001-EP10984	20010821
				US 2003-362728	20030611

OTHER SOURCE(S): GI

MARPAT 136:200109

$$(Y)_n \xrightarrow{X}_{NH_2} X$$

AB Title compds. (I; X = halo; Y = halo, haloalkyl, alkoxycarbonyl, alkylsulfonyl; n = 0-3) were prepared by catalytic hydrogenation of the corresponding 2-cyano derivs. Thus, 3-chloro-2-cyano-5-trifluoromethylpyridine (preparation given) was hydrogenated in MeOH over Pd/C containing HCl at 1 atmospheric to give 95-97% 2-aminomethyl-3-chloro-5-trifluoromethylpyridine hydrochloride.

RX(1) OF 1 A ===> B

F3C
$$C \stackrel{*}{=} N$$

● HCl

B YIELD 97%

RX(1) RCT A 80194-70-3 RGT C 1333-74-0 H2, D 7647-01-0 HC1

10535723

PRO B 326476-49-7 CAT 7440-05-3 Pd SOL 67-56-1 MeOH